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MODIS Science Data Support Team (SDST) Meeting Minutes 09/18/92

ATTENDEES: Lloyd Carpenter, Paul Chan, Jy-Tai Chang, Larry Fishtahler, Al Fleig, Tom Goff, Liam Gumley, Rick Hatfield, Paul Hubanks, Ed Masuoka, Jeff Olsenholler, Jim Ormsby, Shahin Samadi, Lalit Wanchoo, Will Webster

NEXT MEETING: Date Time Building Room
Friday, October 02 10:00 am 22 G95

NOTE: THERE WILL BE NO MEETING ON FRIDAY, SEPTEMBER 25, 1992

TOPICS:

1. MODIS AIRBORNE SIMULATOR (MAS): Liam Gumley reported on MAS data processing and software development. Signal-to-noise ratios (in the sense of RMS divided by mean signal over cloud free ocean areas) were computed for the MAS FIRE data set of 31 October 1991 and the ASTEX data set of 23 June 1992. The results give quantitative noise estimates which are helpful in evaluating instrument performance.

Liam also provided copies of his format conversion software to Chris Moeller (Wisconsin) and Pat Grant (Ames). This will make it possible for Chris to process data in the field using PC-MCIDAS for the TOGA/COARE experiment in January.

Liam suggested the development of a MAS prototype shell to develop data flows and control mechanisms which will be important in the MODIS higher-level processing. In the absence of full-up algorithms, the prototype shell would be built, initially, around basic methods for land/sea discrimination, cloud/snow detection, NDVI, SST, aerosol optical depth, and biome-BGC. A flow diagram, designed by Phil Ardanuy, was included in the handout.

2. USING MICROSOFT PROJECT: In applying Microsoft Project to the MODIS Level-1A design, Tom Goff has discovered an interesting limitation, wherein the software will not determine the number of people required to complete a task on time, when the total effort and the duration are specified. An iterative process is necessary in this case.

3. DESIGN REVIEWS IN THE CASE ENVIRONMENT: Executing a design in a CASE environment involves development of five sequential models: the environmental model, the behavioral model, the processor model, the task model, and the hierarchy model. The proper completion of the elements of this sequence constitutes a natural basis for Total Quality Management (TQM) in the CASE environment. The elements of the familiar requirements and design reviews (SRR, PDR, and CDR) will require interpretation in terms of the CASE models.

4. MODIFIED DATA PRODUCTS LIST: Lloyd Carpenter presented a modified MODIS data products list which J.J. Pan and Brenda Vallette put together, starting from the SPSO list. The new list was formed by combining products which were previously listed separately as different resolutions of the same product. This process reduced the total number of MODIS products from 191 to 121.

Of the 121 combined products, 63 are at-launch, and 5 are listed as post-launch but are required input to at-launch products.

Of the 121 combined products, 30 are on the "selected" list, and 6 others are required input to selected products.

5. MODIS PIXEL NAVIGATION SOFTWARE: Paul Hubanks reported that he has received a set of 11 pixel navigation

and satellite orbit prediction subroutines from Fred Nagel (NESDIS, U. Wisconsin). Paul was successful in compiling and running the basic earth navigation routine after removing references to High Level Fortran (HLF), a Fortran extension. So far he has not been able to get the USGS software for geolocation of AVHRR data from the EROS Data Center.

ACTION ITEMS:

04/24/92 [Lloyd Carpenter & Team] Develop a staffing plan for the accomplishment of the tasks shown on the schedule. STATUS: Closed. Due Date: 06/12/92

06/12/92 [Tom Goff, Carroll Hood] Develop separate detailed schedules using Microsoft Project for Level-1A and -1B software design and development. (Updated results were discussed in the handout.) STATUS: Open. Due Date: 07/10/92

07/31/92 [Tom Goff, Ed Masuoka, Al Fleig] Develop the purpose and requirements for a packet simulator. Get more information on the packet simulator being developed by SBRC. (An updated requirements specification was included in the handout on 09/04/92. Tom, Ed, and Al are to meet and discuss coordination with Jerry Hyde of SBRC.) STATUS: Open. Due Date: 09/04/92